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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
DEXTER, CLARK F	

ART UNIT	PAPER NUMBER
3724	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/744,181	KNEPPE ET AL.	
	Examiner	Art Unit	
	Clark F. Dexter	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-23* is/are pending in the application.

4a) Of the above claim(s) *13,18 and 21-23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,12,14-17,19 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on November 13, 2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Method Claims 11, 12 and 14-17:

3. Claims 11, 12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Read, pn 1,015, 836 in view of Kobayashi et al., pn 5,918,518 (hereafter Kobayashi '518) and Shearon, pn 4,080,856 (hereafter Shearon '856).

Read discloses a method with almost every step of the claimed process including drums (e.g., 1, 2) arranged so as not to touch (e.g., as most clearly shown in Figures 4 and 5) but lacks (a) the workpiece being a sheet metal or metal strip, and (b) the step of employing a valve.

Regarding (a), it is old and well known to provide webs in the form of sheet metal or metal strip, and further that it is old and well known in the art to cut such webs using a cutter roll configuration. Kobayashi '518 discloses one example of such a web, wherein the web is a metal foil, and further discloses the use of a cutter roll configuration to cut the foil. Therefore, it would have been obvious to one having ordinary skill in the art to use the device of Read to cut any type of web material including a sheet metal or metal strip for various well known reasons including cutting a metal foil to a desired length when the device of Read is available.

Regarding (b), the use of such valves is old and well known in the art and provides various known benefits including producing and facilitating fluid flow to a desired component including rollers so that the fluid can be applied in an efficient and desired manner including the desired force and location/timing of fluid application. As one example, Shearon '856 discloses the use of such a valve and teaches that it is used to provide airflow to a specific location of the roller for a limited amount of time. Therefore, it would have been obvious to one having ordinary skill in the art to provide such a valve on the device of Read for the well known benefits including those described above and taught by Shearon '856.

In the alternative, if it is argued that Read does not disclose drums arranged so as not to touch, it is old and well known in the art to provide a space between such drums to accommodate thicker sheets of material. There are many examples of such a drum configuration; Kobayashi and Shearon each disclose one example of such a drum configuration. Therefore, it would have been obvious to one having ordinary skill in the art to provide a space between the drums so that the drums do not touch for the well known benefits including that described above.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Read, pn 1,015, 836 in view of Kobayashi et al., pn 5,918,518 (hereafter Kobayashi '518) and Shearon, pn 4,080,856 (hereafter Shearon '856), as applied to claim 11 above, and further in view of German Publication 944 919 (hereafter GP '919).

The combination lacks the specific type of cutter configuration, specifically, shearing off shears. However, the Examiner takes Official notice that such cutter configurations are old and well known in the art and provide various known benefits including providing a cutting action on both sides of the work piece to reduce the occurrence of tearing or the like. Often, different types of cutters are used on different types of work pieces. GP '919 provides an example of such a cutter. Therefore, it would have been obvious to one having ordinary skill in the art to replace the cutters of Read with shearing off shears for the well known benefits including those described above.

Device Claims 19-20:

5. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Publication 944 919 (hereafter GP '919) in view of Read, pn 1,015,836 and Shearon, pn 4,080,856 (hereafter Shearon '856).

GP '919 discloses a device with almost every structural limitation of the claimed invention including:

a conveying device (e.g., 2, 2) for conveying the sheet metal or metal strip;

drums (e.g., 4, 5) selected from the group consisting of transport drums and blade carrier drums, the drums being arranged so as not to touch;

the drums each having a periphery provided with jet nozzles (e.g., 10, and as suggested by at least the language found in the sentence bridging pages 2 and 3 of the specification).

GP '919 lacks:

(a) an illustration of each of the drums being provided with jet nozzles, wherein the jets are arranged in at least one row parallel to the axis of the drums, and

(b) a timed fluid supply system, specifically:

wherein the drums each have an interior and supply channels arranged in the interior, wherein the supply channels are connected to a source of a medium to be supplied under pressure, wherein the source is provided external to the drums;

wherein the jet nozzles are connected by connecting channels to the supply channels and are oriented against at least one of a top surface and a bottom surface of the sheet metal or the metal strip;

at least one pump and at least one valve arranged between the supply channels and the source, the valve including the connecting channels;

[claim 20] wherein the valve is arranged at an end face of each of the drums.

Regarding (a), the use of jet nozzles on each drum, wherein the jets are arranged in at least one row parallel to the axis of the drums, is old and well known in the art and provides well known benefits. As one example, Read discloses the use of such a jet nozzle configuration and teaches that it provides for an improvement in means for controlling and directing moving sheets or webs. Therefore, it would have been obvious to one having ordinary skill in the art to provide such a jet configuration on each drum to gain the well known benefits including those described above.

Regarding (b), the use of such timed fluid supply systems is old and well known in the art and provide various known benefits including producing and facilitating fluid flow to a desired component including rollers so that the fluid can be applied in an efficient and desired manner including the desired force and location/timing of fluid application. As one example, Shearon '856 discloses the use of such a fluid supply system and teaches that it is used to provide air flow to a specific location of the roller for a limited amount of time. Therefore, it would have been obvious to one having

ordinary skill in the art to provide such a valve on the device of Read for the well known benefits including those described above and taught by Shearon '856.

6. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Read, pn 1,015,836 in view of German Publication 944 919 (hereafter GP '919) or Obenshain, pn 3,143,016, and in view of Shearon, pn 4,080,856 (hereafter Shearon '856).

Read discloses a device with almost every structural limitation of the claimed invention including:

drums (e.g., 1, 2) selected from the group consisting of transport drums and blade carrier drums, the drums being arranged so as not to touch (e.g., as most clearly shown in Figures 4 and 5);

the drums each having a periphery provided with jet nozzles (e.g., 9, 9; 11, 11) arranged in at least one row parallel to an axis of the drums.

Read lacks:

(a) a conveying device for conveying the sheet metal or metal strip, and

(b) a timed fluid supply system, specifically:

wherein the drums each have an interior and supply channels arranged in the interior, wherein the supply channels are connected to a source of a medium to be supplied under pressure, wherein the source is provided external to the drums;

wherein the jet nozzles are connected by connecting channels to the supply channels and are oriented against at least one of a top surface and a bottom surface of the sheet metal or the metal strip;

at least one pump and at least one valve arranged between the supply channels and the source, the valve including the connecting channels;

[claim 20] wherein the valve is arranged at an end face of each of the drums.

Regarding (a), conveying devices for conveying a sheet of material, including sheet metal or metal strip, are old and well known and provide various well known benefits including automation of processes whereby a workpiece can be mechanically fed to an operation. Various examples are disclosed in the prior art of record; as one example, GP '919 discloses a conveying device in the form of rollers (e.g., 2, 2) for conveying a sheet to a cutting device; as another example, Obenshain discloses a conveying device in the form of rollers (e.g., shown at the far left in Figure 1) for conveying a sheet to a cutting device. Therefore, it would have been obvious to one having ordinary skill in the art to provide such a conveying device on or for the device of Read to gain the well known benefits including those described above.

Regarding (b), the use of such timed fluid supply systems is old and well known in the art and provide various known benefits including producing and facilitating fluid flow to a desired component including rollers so that the fluid can be applied in an efficient and desired manner including the desired force and location/timing of fluid

application. As one example, Shearon '856 discloses the use of such a fluid supply system and teaches that it is used to provide airflow to a specific location of the roller for a limited amount of time. Therefore, it would have been obvious to one having ordinary skill in the art to provide such a valve on the device of Read for the well known benefits including those described above and taught by Shearon '856.

In the alternative, if it is argued that Read does not disclose drums arranged so as not to touch, it is old and well known in the art to provide a space between such drums to accommodate thicker sheets of material. There are many examples of such a drum configuration; Kobayashi and Shearon each disclose one example of such a drum configuration. Therefore, it would have been obvious to one having ordinary skill in the art to provide a space between the drums so that the drums do not touch for the well known benefits including that described above.

Response to Arguments

7. Applicant's arguments filed November 13, 2007 have been fully considered but they are not persuasive.

> In the first paragraph on page 12 of the subject amendment, applicant states that "The Shearon patent has no disclosure concerning a device for guiding and supporting sheet metal or metal strip as is taught by the presently claimed invention."

However, as stated by the Examiner in the previous Office action, Shearon is provided as teaching the specific configuration of the valve, and not to the guiding structure which is disclosed by Read and German Publication 944 919.

At the end of the second paragraph on page 13 of the subject amendment, applicant argues that

> "Contrary to the present invention, the jets of Read do not support the web since the web is not placed on a conveying device, but instead hangs freely."

However, it is respectfully submitted that the jets of the prior art clearly support the web to at least some extent (e.g., they support the web against lateral movement). Further, it is noted that the Examiner's position is not that the prior art operates in the same manner as the disclosed invention. Rather, the Examiner's position is that the prior art teaches or suggests every step of the claimed method.

In the paragraph bridging pages 13-14 of the subject amendment, applicant argues that:

> "Applicant respectfully submits that none of these references, taken alone or in combination, provides any teaching concerning a method for guiding and supporting a thin sheet metal or metal strip during transport across a conveying device and through drums selected from the group consisting of a transport drum and a blade carrier drum during, before or after a cutting process carried out by shears using jets, as in the presently claimed invention. Without some teaching concerning supporting metal strip or sheet metal with jets, the references do not teach or suggest the present invention."

The Examiner respectfully disagrees. While the Examiner agrees that no single reference teaches all of the limitations of the claimed invention, the Examiner respectfully maintains that the prior art, particularly the applied prior art, teaches or fairly suggests all of the limitations of the claimed invention as described in the corresponding prior art rejections above.

In the paragraph bridging pages 14-15 of the subject amendment, applicant argues that:

> "There is no teaching, as found in the presently claimed invention, of jet nozzles in the upper and lower drums both before and after the blades for lifting and supporting a metal strip."

However, it is respectfully noted that applicant's argument is not fully understood since it is not clear how the jet nozzles present on the upper drums are capable of either "lifting" or "supporting" the metal strip.

In the second paragraph on page 15 of the amendment, applicant argues that

"Applicant respectfully submits that none of these references, taken alone or in combination, provides any teaching concerning a method for guiding and supporting a thin sheet metal or metal strip during transport across a conveying device and through drums selected from the group consisting of a transport drum and a blade carrier drum during, before or after a cutting process carried out by shears using jets, as in the presently claimed invention."

However, it is respectfully submitted that claims 19-20 are directed to a device, not a method, and thus applicant's argument must be considered moot.

Further in the second paragraph on page 15 of the amendment, applicant argues that

"Without some teaching concerning supporting metal strip or sheet metal with jets, the references do not teach or suggest the present invention."

However, as stated in the above paragraph, claims 19-20 are directed to a device, not a method. Further, it is respectfully submitted that the workpiece is not part of the claimed device and thus is not considered to patentably distinguish the claimed device over the prior art.

For at least the above reasons, the prior art rejections must be maintained.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clark F. Dexter whose telephone number is (571)272-4505. The examiner can normally be reached on Mondays, Tuesdays, Thursdays and Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571)272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Clark F. Dexter
Primary Examiner
Art Unit 3724

cfd
January 30, 2008